

Artificial Intelligence (AI) in Digital Marketing: Future Shifts in Businesses

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ABSTRACT

This paper offers views on future trends in digital marketing because of the involvement of Artificial intelligence (AI). The content is based on recent literature and on what is happening in the business world. The paper is based on quantitative data available on the internet. The various Blogs, reports, E-books, magazines, researches, articles, websites, etc have been studied. We experience a rapid change in businesses because of the involvement of AI. Artificial intelligence is an interdisciplinary science that works like human intelligence. AI is involved in the decision making process in every field of business. Its involvement changes the business tactics. The component of AI like Big Data & Machine learning is used to analyze the data and give the conclusions which can be used in business strategies. If we focus on Digital marketing the Ads are getting more personalized. AI analyze the behavior of the customer like which website they are visiting, what the product they are searching for, their interest, what they follow, which videos they like to see on online streaming platforms, their demographics, etc. so, after analyzing their behavior AI will show them the filter ads which they are interested with. Artificial intelligence will be game-changer as their applications such as chatbots, voice search, augmented reality, automated content creation, smart email marketing, etc. are the application which changes user experience in e-commerce and web browsing. Along with these applications, it will come up with different challenges like privacy threat, unemployment and the accuracy of the results. The research is going on to improve this technology.

INTRODUCTION

Marketing is one of the most important parts of any business. If a firm has a superior product but they cannot be able to reach out their product to its potential customer then the product has no use. Marketing plays a vital role in getting a new customer and at the same time sustain the existing customers. In the world of digitalization, marketing is now automated, smarter, proactive, customer-oriented, more personalized. Artificial intelligence is an interdisciplinary science that works like human intelligence. In the competitive field of marketing, it should necessary to show Ads to the right customers. Artificial intelligence is now the integral of digital marketing and it is involved from aware to advocate. From the decade artificial intelligence involved in digital marketing which will provide the data regarding website analytics, website traffic, times spent on a webpage, session duration, etc. The social media giant Facebook uses artificial intelligence to customize and target-oriented Ad campaigns. Which involves suggested demographics like interest, age, occupation, gender, etc. Artificial intelligence will be game-changer as their applications such as chatbots, voice search, augmented reality, automated content creation, smart email marketing, etc. are the application which changes user experience in e-commerce and web browsing. Artificial intelligence plays revolutionized the way in digital marketing with more customer-oriented and keep sales engine running around the clock. This paper focuses on the overall impact of AI on fostering the integration with Digital marketing.

LITERATURE REVIEW

The core of marketing hasn't changed, but the way we communicate has changed marketing. It is morphing every day. That's where the big shift has happened. The art of storytelling is very much there but how we tell the story and the medium through which we tell the story is the key. The big changes that will happen in marketing, just as in business, is artificial intelligence and machine learning. – Sanjiv Mehta, CEO & MD of Hindustan Unilever Ltd. (Corporate citizen, February 16-28, 2018, Page 20 to 25) It's not that difficult to

argue that marketing in the future will make increasing use of AI. Even today, the components of an AI-biased approach are largely in place. Contemporary marketing is increasingly quantitative, targeted, and tied to business outcomes. Ads and promotions are increasingly customized to individual consumers in real-time. Companies employ multiple channels to get to customers, but all of them increasingly employ digital content. Company marketers still work with agencies, many of which have developed analytical capabilities of their own. - Thomas H. Davenport (Artificial Intelligence for Marketing by Jim Sterne, Page 18)

“Artificial intelligence is the art to make machines intelligent” (Demis Hassabis, Founder of Deepmind, 2015). It is the most widely accepted definition and also a well-fitting since AI is a broader term used for a number of a variety of indicators. Under the AI, there are some subcategories including machine learning and deep learning which manufacture real-world apps of AI, including search suggestions, voice recognition, virtual assistants and image recognition.

According to the American Marketing Association “Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.” (American Marketing Association, 2013). It is a collection of different activities that are involved when selling a product or service. Similar to other business activities it has entered the process of digital transformation and is now in the process of adopting AI tools. Digital Marketing, therefore, can be viewed as an “adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders” (Kannan & Li, 2017).

Data Mining refers to the process of working through big data and analyzing it for patterns and correlations. The big data is a collection of historical results gathered all over the internet that can be best described by high volume, velocity, and variety (Perry, 2017). By working through and analyzing the data marketers can get useful insights into their, customers the environment or their competitors.

The progressions made in AI and its executions in various domains have resulted in the advancement of AI technologies that is evident to be valuable and beneficial for marketing professionals. Since more emphasis is on digital marketing as compared to the traditional methods of marketing, ample data is there for the usage of AI technologies. AI technologies have the ability to help marketing managers in various functions including lead generation, market research, social media controlling and customization of consumer experiences (Sterne, 2017).

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The earlier concepts and principles have been examined to tackle the marketing-related issue for a very long time (Wierenga & van Bruggen, 2000) but the major usage and implementation of AI in marketing have begun to arise in past few years (Wierenga, 2010). AI has been implemented in most of the companies in today’s world but there is still not a high-level of implementation in different companies. Different marketers have shown their interest in adopting AI soon and around 98% of them are now preparing for executing it

completely. Whereas, only 20% of the marketers have implemented one or more AI solutions in 2017 in the business (Bughin, McCarthy & Chui, 2017).

According to Sanjiv Mehta (CEO & MD of Hindustan Unilever Ltd “The core of marketing hasn’t changed, but the way we communicate has changed marketing. It is morphing every day. That’s where a big shift has happened. The art of storytelling is very much there but now we tell the story and the medium through which we tell the story is the key. The big changes that are happening in marketing, just as in business, is artificial intelligence and machine learning” (Corporate citizen, February 2018).

In the area of promotion and advertisement, AI is mostly used to learn more about the customers and target them more specifically and personalize the messages towards them (Daugherty & Wilson, 2018). When using virtual assistants and smart speakers that require a shift. The digital advertisement was mainly based on the developments of screens, but not all virtual assistants and smart speakers are connected with a screen, furthermore, it is one of the main aspects that they offer assistance without screens. The advertisements here need to rely fully on audio messages and the direct voice-based interaction with the customer.

Currently, the development of AI tools is shifting more towards developing more commercial applications. These are programmed to make the industry more efficient and rely mostly on automation. In comparison to this, the development of scientific applications is focused on less. So-called platform companies are disrupting the existing industries by being an intermediate platform that connects other applications with each other (Kiron & Unruh, 2018). According to Saher Ghattas from Forbes, the key is to better understand this disruption which is based on three core behaviors of the network, the quick and convenient access to information, the one-on-one engagement between customer and service, and the customization of the online experience. (Ghattas, 2018).

More than half of marketers currently use AI, and an additional 27% are expected to incorporate the technology by 2019 (Tran 2018). It shows that the involvement of AI in digital marketing.

RESEARCH METHODOLOGY

How Companies are currently using AI

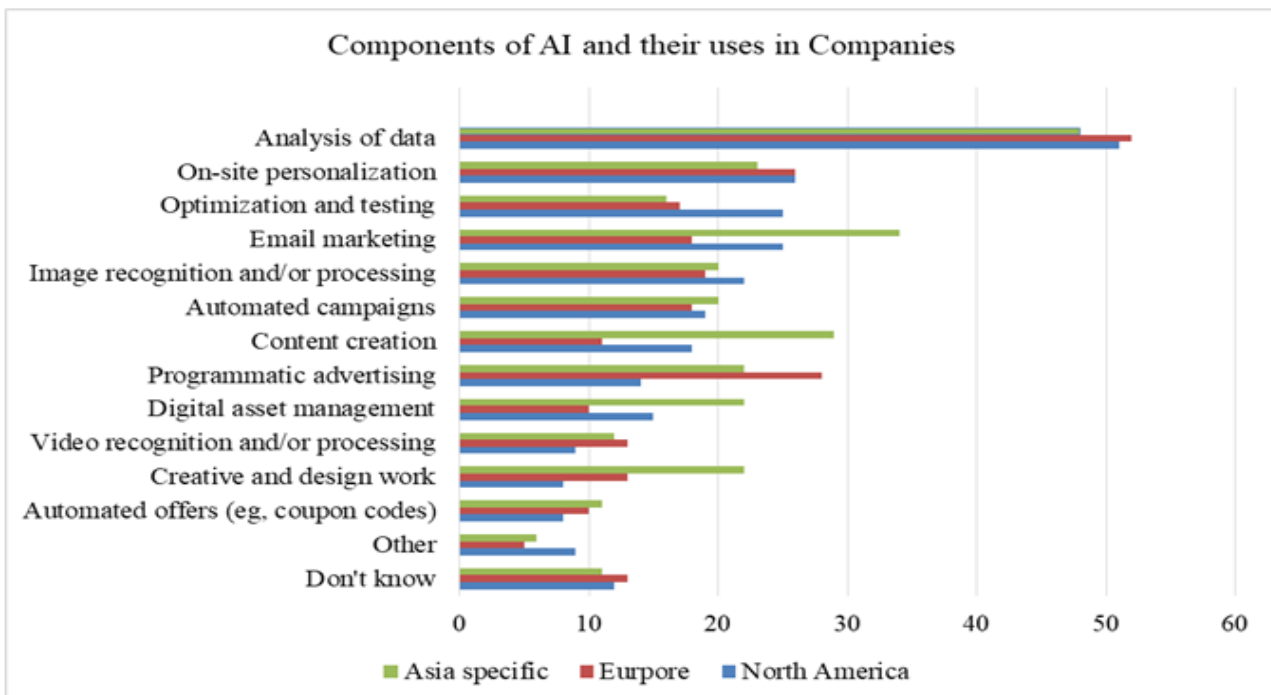


Fig-1: Components of AI and their uses in Companies
 (Source: Published on marketing.com in March 2018, Data Source: Econsultancy / Adobe)

The study is based on a survey of almost 12,800 digital marketing and e-commerce professionals from the client-side (60%) and supply-side (40%), with respondents hailing primarily from Europe (44%), followed by Asia (21%), North America (16%) and other regions.

Top-performing companies are those who exceeded their business goals and believe that they're outperforming their competitors. Some 28% of these organizations say they're already using AI, compared to 12% of "mainstream companies." Overall, some 57% of the top-performing companies either are using or plan to use AI in the next 12 months, while fewer than half of "mainstream" companies concur.

Data released last year by Salesforce suggested a greater usage of AI: while it was the least-adopted technology among those identified, 51% reported putting AI to use in their marketing efforts.

Involvement of AI in Digital Ads

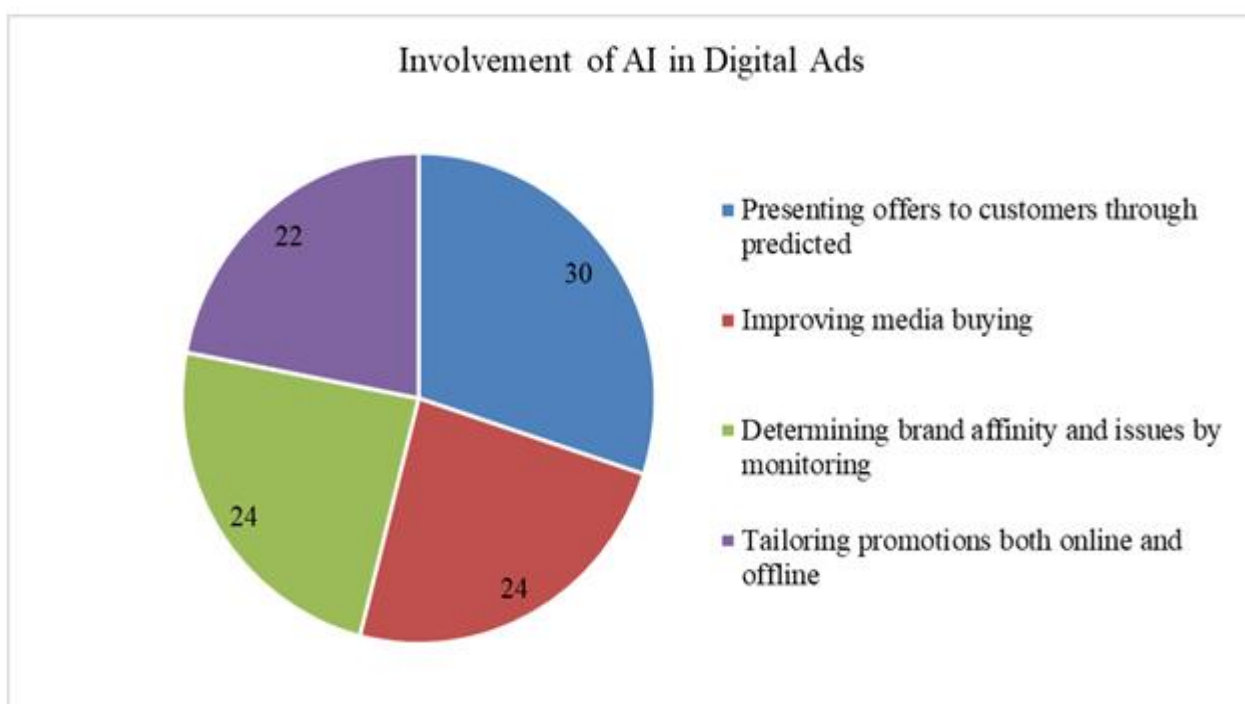


Fig-2: Involvement of AI in Digital Ads.

AI analyzes the customer algorithm, browsing, interest, of the customer and provides the targeted ads which will improve the ROI for the business. The influencer factor is playing a role which stimulates the emotions of the customer. AI involved in 30% while analyzing the customer which will increase up to 50% in 2020.

AI is involved up to 24 % in determining brand affinity and feedback systems. It is a real-time activity where chatbots have assisted the customer. Amazon is started the virtual assistance to resolve the issues from placing an order to return or replace the product. It will anticipate what else they might find helpful in tandem with a current or recent purchase.

AI marketing solutions connect the entire marketing spectrum, including customer data, access to that data by the marketer and machine, campaigns and content, and execution. It will promote the brand in online and offline mode.

ANALYSIS & INTERPRETATION

To analyze the disruption of AI in Digital marketing, analyze it with the data of the companies who are actively adopted AI. Also, they are researching and experimenting with future aspects where they can use to improve their existing products. This research is based on the existing services and the products which are used and provided by companies like Google, Amazon, Facebook, BBC News, etc.

DIGITAL VOICE SEARCH ASSISTANTS

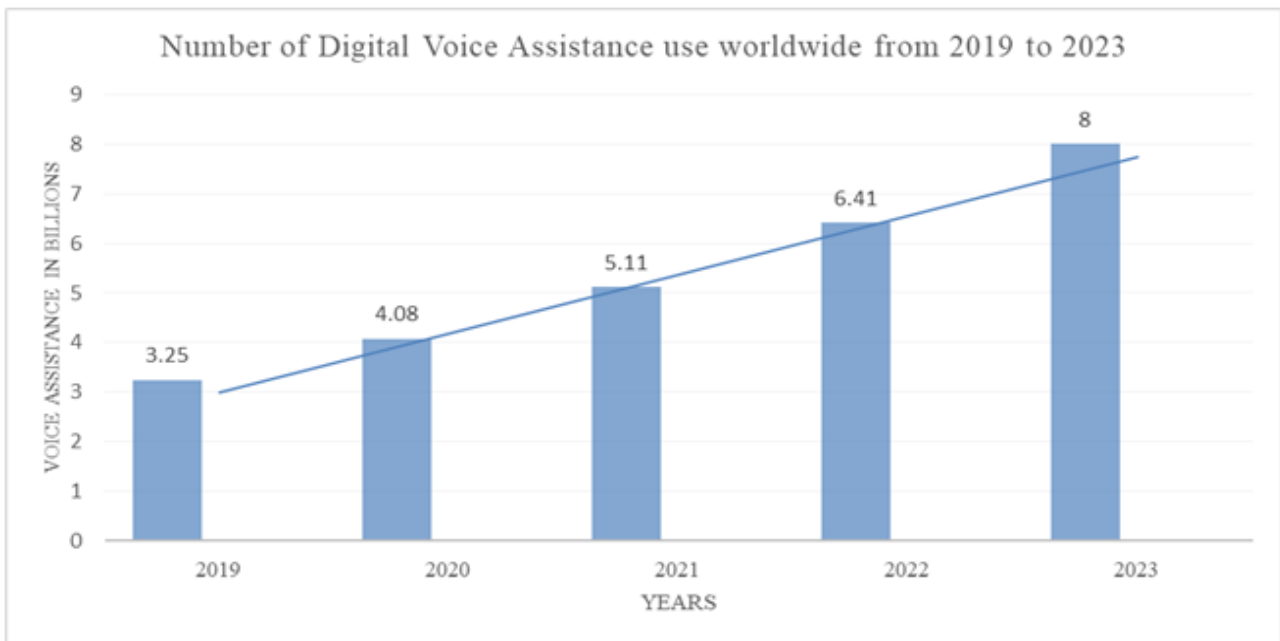


Fig 3- Number of Digital Voice Assistance use worldwide from 2019 to 2023
(Source: statista.com)

Voice search is introduced by Google in 2011. Over a period of time, the accuracy is increased and it is observed that at least 41% of youth are using voice search in a day and it will be increased up to 50% in 2020. Voice search technology keeps improving and enhancing the capabilities of connected devices will increase up to 8 billion in 2023.

The observations show that the Voice search technology will change the searching techniques. Because of AI, the algorithm which is used by Google is changing rapidly and hence the different techniques used by the digital marketer also changes. Along with the keywords they have to focus the voice searches done by users while finding their queries. RankBrain is a component Google algorithm that uses machine learning to determine the most relevant results on search queries. Search engine optimization (SEO) is the technique to improve the website rank in the search engine result page. So, in the competition to be first in search engine result page voice search plays an adequate role. It may involve the voice as one of the important techniques to improve the website rank.

Voice recognition from Google already has an accuracy of 95%, and Google is not the only tech company working on the perfection of voice recognition to capitalize on voice search.

AUTOMATED DIGITAL ADVERTISEMENT

The success of a digital marketing campaign depends on the target which they want to achieve like lead generation, app installs, increase the footfall in-store, etc. While design the digital marketing campaign on Google and Facebook they are actively using AI to filter the right audience. While designing the campaign in Google Ads, they suggested keywords for the ad group. The bidding strategy depends on the volume and density of that particular keyword. So, by using machine learning it helps to define the right cost of each keyword. It analyzes search volume results and then decides the actual cost of that particular keyword. So, AI is helping to optimize the budget.

Facebook is allowed to design the target audiences according to different demographics like interests, Location, Gender, etc. AI is helping to find out the most relevant information. It shows related information regarding the campaign. AI analyzes the pattern, behavior, followers, interest, likes, and dislikes of their user and show them the targeted ads.

AUTOMATIC CONTENT CREATION

A combination of AI with Big Data and Natural language processing allows businesses to automate content creation. AI is used by newspapers for writing articles, news, blogs, etc. By filling up the blanks the algorithm creates the content. We are anonymously reading the articles which may be created by using AI.

Along with this AI will create the custom content is for personalizing content for the customer. For example, if a user searches apparel so the content will be created by analyzing its past search history.

The BBC News and Washington News-Press are actively working on it and by 2020 they launch the full-fledge AI news in their Prime Time. They're working on a computer system that can do the work of multiple human beings, picking out interesting local data trends.

AI IN E-COMMERCE

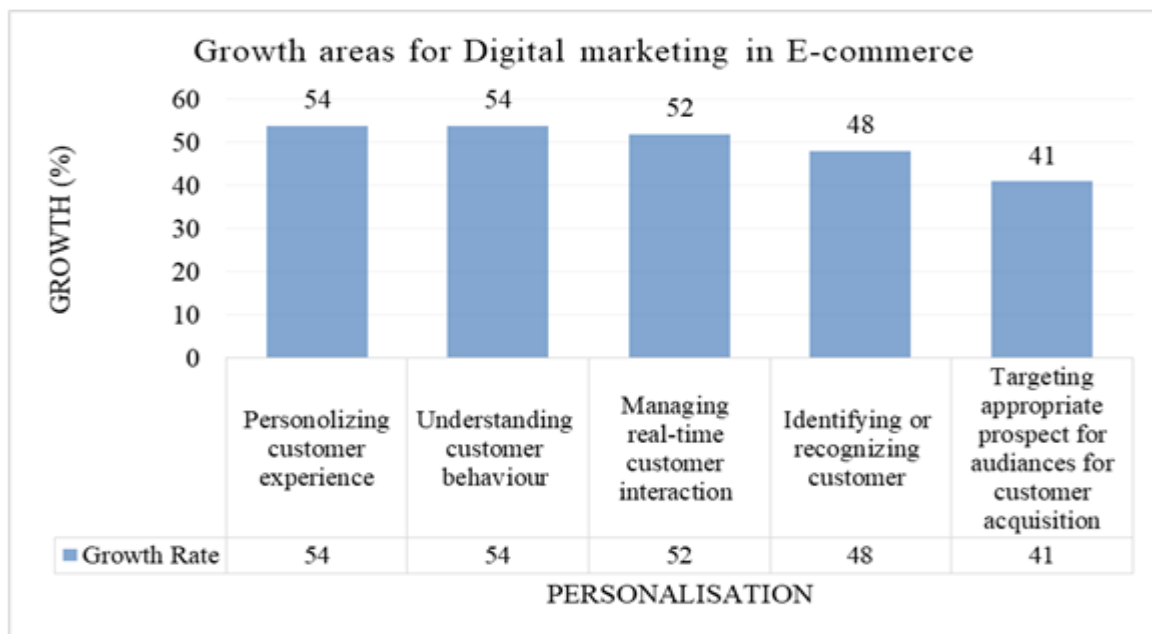


Fig-4: Growth areas for Digital marketing in E-commerce

(Source: A commissioned study conducted by Forrester Consulting on behalf of Emarsys, June 2017)

E-commerce organizations are using AI and its subset technologies like machine learning and deep learning. The survey shows that more than half of global marketers are using AI for personalization, to understand customer behavior, and manage interactions. Some of the personalization examples like incentives, birthday and other anniversaries, real-time availability, abandonment emails, etc.

CONCLUSION

- Artificial Intelligence is analyzing the algorithms and suggested the prefer changes. AI will make the decisions for a marketer to understand what content to target a customer.
- As an optimization technology and depending upon how much quality data you have and which technology you're using, AI can help you deliver a mildly better to drastically enhanced customer experience. AI will save money and time. The data-driven analyzed data is helping in decision making which reduces the manual efforts.
- The challenges are the field is new to the world and needs more research to improve the technology. The results are still not adequate.
- It may affect employment as machine learning and NLP has the ability to work like the human brain. It is time to accept the disruption and upskill the knowledge.

REFERENCES

1. <https://ai.googleblog.com/>
2. <https://www.nibusinessinfo.co.uk/content/what-artificial-intelligence-ai>
3. <https://blog.adext.com/applications-artificial-intelligence-ai-digital-marketing/>
4. <https://techjury.net/stats-about/ai/#gref>
5. <https://www.statista.com/statistics/973815/worldwide-digital-voice-assistant-in-use/>
6. <https://www.dbswebsite.com/blog/trends-in-voice-search/>
7. <https://thenextweb.com/contributors/2017/10/21/world-ai-robot-writers-will-look-like/>
8. <https://www.marketingtechnews.net/news/2019/sep/02/bbcs-beeb-shows-why-ai-voice-assistants-are-not-yet-ready-enterprise-prime-time/>
9. <https://www.emarsys.com/resources/blog/how-ai-marketing-works/>
10. <https://www.marketingcharts.com/customer-centric/analytics-automated-and-martech-82540>
11. <https://www.ct4.com/why-work-when-ai-can-work-for-you/>